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SQUIRE, SANDERS & DEMPSEY L.L.P.			PHUONG, DAI	
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TYSONS CORNER, VA 22182			2685	

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/612,343	<b>Applicant(s)</b> LIALIAMOU ET AL.	
	<b>Examiner</b> Dai A Phuong	<b>Art Unit</b> 2685	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 and 30-46 is/are rejected.
- 7) ☒ Claim(s) 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/28/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8, 10-28 and 32-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Masuda (Pub. No: 2003/0078031).

Regarding claim 1, Masuda communications system (fig. 14, [0093]) comprising: at least one user device 10, said at least one user device configured to access a plurality of services in a session ([0094]); an information store for storing information defining an amount of money for said at least one user device ([0044], [0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1); and a controller 22 for requesting at least a portion of said amount of money to be reserved as a reserved portion ([0046] to [0048]) and for controlling an allocation of said reserved portion between said plurality of services ([0047] and [0050]. Notice that, if the user currently receives two prepaid services at the same time. Hence, the balance is allotted equally to the individual prepaid services).

Regarding claim 2, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said reserved portion is divided into a plurality of parts between said plurality of services ([0050]).

Regarding claim 3, Masuda discloses all the limitation in claim 2. Further, Masuda discloses a system wherein said reserved portion is divided equally ([0047]).

Regarding claim 4, Masuda discloses all the limitation in claim 2. Further, Masuda discloses a system wherein said reserved portion is reallocated between said plurality of services when at least one of said plurality of services uses up its part of said reserved portion ([0040]).

Regarding claim 5, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said reserved portion is allocated based on which of said plurality of services requires said reserved portion ([0049]).

Regarding claim 6, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said reserved portion is allocated dynamically ([0052]).

Regarding claim 7, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said reserved portion is allocated based on at least one of: service activity; **number of services**; and a unit cost of said plurality of services ([0050] to [0052]).

Regarding claim 8, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said controller is configured to monitor how much of said reserved portion has been used ([0040]).

Regarding claim 10, Masuda discloses all the limitation in claim 8. Further, Masuda discloses a system wherein said controller is configured to monitor how much of said reserved portion has been used by using information defining a cost of said plurality of services ([0050] to [0052]).

Regarding claim 11, Masuda discloses all the limitation in claim 10. Further, Masuda discloses a system wherein said information comprises a cost for one of a data or time unit ([0101]).

Regarding claim 12, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein when said reserved portion is used up or has been at least partially used up a further portion of said amount of money is reservable ([0065]).

Regarding claim 13, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein a plurality of said plurality of services is accessed simultaneously ([0039]. Notice that, the prepayment control means 22 determines whether or not the user currently receives two prepaid services at the same time, please see section [0045]).

Regarding claim 14, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said information store comprises one of: **a monetary value**; a data amount representative of said amount of money; a time representative of said amount of money; and an amount of a service access parameter ([0044] and [0050] to [0052]).

Regarding claim 15, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein at least one of said plurality of services comprises an Internet service ([0116] and [0121]).

Regarding claim 16, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said controller comprises a plurality of entities (fig. 14, [0093]).

Regarding claim 17, Masuda discloses all the limitation in claim 16. Further, Masuda discloses a system wherein said plurality of entities comprises at least one of a traffic analyzer 31 and 32 (fig. 14, [0102] to [0103]) and a credit controller 20 (fig. 14, [0095] and [0114]).

Regarding claim 18, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said controller comprises a credit controller 20 (fig. 14, [0095]).

Regarding claim 19, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said at least one user device is arranged to access a plurality of different service classed in a session ([0126]).

Regarding claim 20, Masuda discloses all the limitation in claim 1. Further, Masuda discloses a system wherein said controller is configured to store information relating to a cost of said plurality of services ([0123]).

Regarding claim 21, Masuda a communications system (fig. 14, [0093]) comprising: at least one user device 10, said at least one user device being configured to access a plurality of services simultaneously ([0094]); a first entity 20 for storing information defining an amount of money for said at least one user device ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user, please see fig. 1); and a controller for requesting reservation of at least a portion of said amount of money as a reserved portion ([0046] to [0048]), wherein said first entity 20 is configured to send information defining an amount of said reserved portion in a first form (fig. 1 and fig. 14, [0094])

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to [0095]. Upon receiving a packet service request from the user terminal device 10, the prepayment control device 20 sends the information about the current balance of the user (**first form**) to the gateway 32) and said controller 20 is arranged to convert information relating to said amount of said reserved portion to a second form ([0090] and **[0098] to [0102]**). Inherently, the prepayment control device 20 converts the in current balance (first form) into volume of data or number of data packets (second form). Upon receiving a packet service request from the user terminal device 10, the prepayment control device 20 sends the current balance (in form of volume of data or number of data packets) to the gateway 32. Then, in accordance with current balance, the gateway 32 determines whether or not the service may be provided to the mobile device 10. Specifically, Masuda recite in section [0101] that Seq. 9a shows **the case where the balance is sufficient to transfer data**, and Seq. 9b shows **the case where the balance is insufficient to transfer data**).

Regarding claim 22, Masuda discloses all the limitation in claim 21. Further, Masuda discloses a system wherein said first entity is configured to store data defining an amount of said reserved portion ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user, please see fig. 1).

Regarding claim 23, Masuda discloses all the limitation in claim 21. Further, Masuda discloses a system wherein said first entity is configured to store a reference name in association with data defining the amount of said reserved portion ([0086]).

Regarding claim 24, Masuda discloses all the limitation in claim 23. Further, Masuda discloses a system wherein said data is one of a cost for a unit amount of a payment parameter of



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at least one service of said plurality of services ([0102] to [0102]. Specifically, Masuda recite in section [0101] that Seq. 9a shows **the case where the balance is sufficient to transfer data**, and Seq. 9b shows **the case where the balance is insufficient to transfer data**).

Regarding claim 25, Masuda discloses all the limitation in claim 24. Further, Masuda discloses a system wherein said payment parameter is data volume, time, or service parameter of at least one service of said plurality of services ([0101] and [0102]).

Regarding claim 26, Masuda discloses all the limitation in claim 23. Further, Masuda discloses a system wherein said reference name is a dummy APN ([0086]).

Regarding claim 27, Masuda discloses all the limitation in claim 23. Further, Masuda discloses a system wherein the reservation requested by said controller to said first entity comprises said reference name ([0086]).

Regarding claim 28, Masuda discloses all the limitation in claim 24. Further, Masuda discloses a system wherein said information in said first form comprises said unit amount ([0101]).

Regarding claim 32, Masuda discloses all the limitation in claim 21. Further, Masuda discloses a system wherein said first form comprises at least one of time, data volume, or service access parameter ([0101]).

Regarding claim 33, Masuda discloses all the limitation in claim 21. Further, Masuda discloses a system wherein said service access parameter comprises at least one of number of clicks or number of accesses ([0086]).



Regarding claim 34, Masuda discloses all the limitation in claim 21. Further, Masuda discloses a system wherein said second form comprises monetary value, number of clicks and number of accesses ([0086] and [0101]).

Regarding claim 35, Masuda discloses a communications method comprising the steps of: accessing a plurality of services in a session ([0094]); storing information defining an amount of money for at least one user device ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1); requesting at least a portion of said amount of money to be reserved as a reserved portion ([0046] to [0048]); and controlling an allocation of said reserved portion between said plurality of services ([0046] to [0048]).

Regarding claim 36, Masuda discloses a controller for use in a communications system comprising: at least one user device, said at least one user device being configured to access a plurality of services in a session ([0094]); and an information store for storing information defining an amount of money for said at least one user device ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1), said controller being configured to request at least a portion of said amount of money to be reserved as a reserved portion and to control an allocation of said reserved portion between said plurality of services ([0046] to [0048]).

Regarding claim 37, Masuda discloses a communications method comprising the steps of: accessing a plurality of services simultaneously ([0039] and [0045]); storing information defining an amount of money for at least one user device ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1); requesting a reservation of at least a portion of said amount of money as a reserved portion ([0046] to [0048]); sending information defining an amount of said reserved portion in a first form (fig. 1 and fig. 14, [0094] to [0095]. Upon receiving a packet service request from the user terminal device 10, the prepayment control device 20 sends the information about the current balance of the user (**first form**) to the gateway 32; and converting information relating to said amount of said portion to a second form ([0090] and [0098] to [0102]. Inherently, the prepayment control device 20 converts the in current balance (first form) into volume of data or number of data packets (second form). Upon receiving a packet service request from the user terminal device 10, the prepayment control device 20 sends the current balance (in form of volume of data or number of data packets) to the gateway 32. Then, in accordance with current balance, the gateway 32 determines whether or not the service may be provided to the mobile device 10. Specifically, Masuda recite in section [0101] that Seq. 9a shows **the case where the balance is sufficient to transfer data**, and Seq. 9b shows **the case where the balance is insufficient to transfer data**).

Regarding claim 38, Masuda discloses a controller for use in a communications system comprising: at least one user device, said at least one user device being configured to access a plurality of services simultaneously ([0094]); and a first entity for storing information defining

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an amount of money for said at least one user device ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1), said controller being configured to request a reservation of at least a portion of said amount of money as a reserved portion ([0046] to [0048]), and to convert information defining an amount of said reserved portion in a first form received from said first entity to a second form ([0090] and [0098] to [0102]. Inherently, the prepayment control device 20 converts the in current balance (first form) into volume of data or number of data packets (second form). Upon receiving a packet service request from the user terminal device 10, the prepayment control device 20 sends the current balance (in form of volume of data or number of data packets) to the gateway 32. Then, in accordance with current balance, the gateway 32 determines whether or not the service may be provided to the mobile device 10. Specifically, Masuda recite in section [0101] that Seq. 9a shows **the case where the balance is sufficient to transfer data**, and Seq. 9b shows **the case where the balance is insufficient to transfer data**).

Regarding claim 39, Masuda discloses a communications system comprising: accessing means for accessing a plurality of services in a session ([0094]); storing means for storing information defining an amount of money for at least one user device ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1); requesting means for requesting at least a portion of said amount of money to be reserved as a reserved portion ([0046] to [0048]); and controlling means for

controlling an allocation of said reserved portion between said plurality of services ([0046] to [0048]).

Regarding claim 40, Masuda discloses a communications system comprising: accessing means for accessing a plurality of services simultaneously ([0039] and [0044]); storing means for storing information defining an amount of money for at least one user device ([0090] and [0095]. Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1); requesting means for requesting a reservation of at least a portion of said amount of money as a reserved portion ([0046] to [0048]); sending means for sending information defining an amount of said reserved portion in a first form (fig. 1 and fig. 14, [0094] to [0095]. Upon receiving a packet service request from the user terminal device 10, the prepayment control device 20 sends the information about the current balance of the user (**first form**) to the gateway 32); and converting means for converting information relating to said amount of said portion to a second form ([0090] and [0098] to [0102]. Inherently, the prepayment control device 20 converts the in current balance (first form) into volume of data or number of data packets (second form). Upon receiving a packet service request from the user terminal device 10, the prepayment control device 20 sends the current balance (in form of volume of data or number of data packets) to the gateway 32. Then, in accordance with current balance, the gateway 32 determines whether or not the service may be provided to the mobile device 10. Specifically, Masuda recite in section [0101] that Seq. 9a shows **the case where the balance is sufficient to transfer data**, and Seq. 9b shows **the case where the balance is insufficient to transfer data**).

Regarding claim 41, this claim is rejected for the same reasons as set forth in claim 8.

Regarding claim 42, Masuda discloses all the limitation in claim 41. Further, Masuda discloses a system wherein said requesting means is configured to monitor how much of said reserved portion has been used by using information defining a cost of said plurality of services ([0050] to [0052]).

Regarding claim 43, Masuda discloses all the limitation in claim 40. Further, Masuda discloses a system wherein said storing means comprises one of: **a monetary value**; a data amount representative of said amount of money; a time representative of said amount of money; and an amount of a service access parameter ([0038]).

Regarding claim 44, Masuda discloses all the limitation in claim 40. Further, Masuda discloses a system wherein said requesting means comprises a plurality of entities (fig. 1, [0036]).

Regarding claim 45, Masuda discloses all the limitation in claim 40. Further, Masuda discloses a system wherein said requesting means comprises a credit controller 22 (fig. 1, [0039]).

Regarding claim 46, Masuda discloses all the limitation in claim 40. Further, Masuda discloses a system wherein said requesting means is configured to store information relating to a cost of said plurality of services ([0090] and [0095]). Inherently, the prepayment control device 20 includes a prepayment control 22 which stores the current balance of the user in order to determine whether or not the service may be provided to the user, please see fig. 1).

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda (Pub. No: 2003/0078031) in view of Wills et al. (Pub. No: 2004/0203585)

Regarding claim 9, Masuda discloses all the limitation in claim 8. But, Masuda does not disclose a system wherein said reserved amount is monitored by periodically determining how much of said reserved portion each of said plurality of services have used to provide a plurality of values and summing the plurality of values.

In the same field of endeavor, Wills et al. disclose a system wherein said reserved amount is monitored by periodically determining how much of said reserved portion each of said plurality of services have used to provide a plurality of values and summing the plurality of values ([0026]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the terminal device of Masuda by specifically including said reserved amount is monitored by periodically determining how much of said reserved portion each of said plurality of services have used to provide a plurality of values and summing the plurality of values, as taught by Wills et al., the motivation being in order to provide notice to the user that the user has a limited amount of time left for use.



5. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda (Pub. No: 2003/0078031) in view of Dannehr et al. (Pub. No: 2003/0037176)

Regarding claim 30, Masuda discloses all the limitation in claim 21. But, Masuda does not disclose a system wherein said first entity operates in accordance with a CAMEL protocol.

In the same field of endeavor, Dannehr et al. disclose a system wherein said first entity operates in accordance with a CAMEL protocol ([0007] and [0008])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the terminal device of Masuda by specifically including first entity operates in accordance with a CAMEL protocol, as taught by Gonthier et al., the motivation being in order to provide the customer with operator-specific services.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda (Pub. No: 2003/0078031) in view of Gonthier et al. (Pub. No: 2002/0116338).

Regarding claim 31, Masuda discloses all the limitation in claim 21. But, Masuda does not disclose a system wherein said controller operates in accordance with a RADIUS protocol.

In the same field of endeavor, Gonthier et al. disclose a system wherein said controller operates in accordance with a RADIUS protocol ([0023]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the terminal device of Masuda by specifically including controller operates in accordance with a RADIUS protocol, as taught by Gonthier et al., the motivation being in order to use for authentication of users and authorization of network access.



### Reasons for Allowance

7. The following is an examiner's statement of reasons for allowance:

Regarding claim 29

Claim 29 is objected to as being dependent upon a rejected base claim 28, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reason for the indication of allowance: the prior art made of record and considered pertinent to the applicant's disclosure does not disclose nor fairly suggest a system wherein said controller is arranged to **convert said unit amount to a corresponding monetary amount to provide said second form.**

### Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Engelhart (Pub. No: 2004/0203580) virtual subscriber network

Straulino (Pub. No: 2005/0090249) communication service in a communication system

Haidat (Pub. No: 2005/0102230) electronic payment and associated sytem

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong

AU: 2685

Date: 06-23-2005



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